#### REMARKS

#### Claim Status

Claims 1-7, 9-22, and 38-39, were previously pending in the present application. Claims 1, 38, and 39 have been amended by way of the present communication. New claims 40-48 have been added. Claims 1-7, 9-22, and 38-48 are now pending in the application. Favorable reconsideration and allowance of the application are respectfully requested in light of the foregoing amendments and the remarks which follow.

Claims 1 and 39 have been amended to more specifically characterize the claimed invention. Support for these amendments can be found in the specification as exampled by page 14, lines 1-5.

Claim 20 has been amended to correct a typographical error, and was not amended for the purposes of patentability.

New claim 40 has been added that depends from independent claim 1. Support for new claim 40 can be found at claim 11.

New claims 41-49 have been added that depend from independent claim 38. Support for claims 40-48 can be found in the application, including certain ones of dependent claims 2-21.

New claim 50 has been added that depends from claim 39. Support for this new claim can be found in claim 39 as previously pending.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

## Rejection Under 35 USC §112, Second Paragraph

The Office Action has rejected claims 1-22 and 39 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office Action asserts that the claims set forth physical characteristics desired of the composite alone rather than the specific composition of the composite in the end product. Therefore, the Office Action states that "the claims are too broad and indefinite since they purport to cover everything having the claimed characteristics regardless of its composition..."

Applicant respectfully directs the Examiner's attention to MPEP §2173.04, which states that "breadth of a claim is not to be equated with indefiniteness". Specifically, if the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph.

Applicant has not indicated that they intend that the invention to be of a scope different from that defined in the claims, nor does the Office Action allege that Applicant has indicated that they intend that the invention be of a scope different from that defined in the claims. Furthermore, the Office Action has not alleged that the scope of the subject matter embraced by the claims is unclear. Rather, the Office Action merely asserts that the claims are broad. As explicitly stated by MPEP §2173.04, "if the claim is too broad because it reads on the prior art, a rejection under either 35 U.S.C. 102 or 103 would be appropriate".

Accordingly, withdrawal of the rejection of claims 1-22 and 39 under 35 USC §112 is respectfully requested.

### Rejection Under 35 USC §102(e) Over Yahiaoui et al.

Claims 1, 3-7, 10, 11, 14, 18, and 39, are rejected under 35 USC § 102(e) as being anticipated by U.S. Patent No. 6,060,636 issued to Yahiaoui et al., hereinafter "Yahiaoui".

In Applicant's Amendment dated January 3, 2005, Applicant argued that claims 1 and 39 recite, in part, that the feces modifying agent "decreases the Hardness of at least a portion of the feces by greater than about 25% at a concentration of no more than about 5 weight percent." Furthermore, Applicant noted that Yahiaoui teaches "structures particularly adapted to receive fluids having viscoelastic properties such as menses, mucous, blood products, feces, and others." (col. 2, lines 36-38). While Yahiaoui teaches that the addition of viscoelastant agents can reduce the elastic stress and viscosity of menses under certain conditions (col. 10, lines 54-67; col. 11, lines 1-2), the fact that Yahiaoui's structure is capable of receiving feces does not imply or enable one skilled in the art to decrease the viscoelastic properties of feces using the disclosed viscoelastic agent. In fact, Yahiaoui fails to teach or suggest that the viscoelastant agent has any

effect on the Hardness of feces in spite of the fact that Yahiaoui explicitly recognizes that the disclosed structure is adapted to receive feces. Accordingly, claims 1 and 39 are not anticipated by Yahiaoui.

In response to Applicant's arguments, the Final Office Action states at Paragraph 2 that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The Office Action further implies that because the prior art is capable of performing the intended use, then it anticipates the claim.

Applicant notes that claims 1 and 39 positively recite that the feces modifying agent is present in an effective amount sufficient to decrease the Hardness of at least a portion of the feces by the specified amount at the specified concentration. The presence of the feces modifying agent in an effective amount that is sufficient to decrease the Hardness of feces is a structural limitation that must be taught or suggested by the prior art in order for the claims to be anticipated or rendered obvious.

The fact that a prior art document may or may not disclose an additive that is said (by the Office Action) to inherently decrease the hardness of fecal matter does not anticipate claims 1 and 39. Yahiaoui claims to teach an additive that reduces the viscosity of menses. Even if Yahiaoui's additive has the ability to reduce the Hardness of feces, Yahiaoui fails to recognize this property of the additive, and thus fails to teach or suggest providing the additive in a sufficient quantity to reduce the hardness of feces, as presently claimed. In order for Yahiaoui to anticipate this element of claims 1 and 39, the Examiner would have to demonstrate 1) a correlation between the effects of Yahiaoui's agent on the viscosity of menses to any inherent effects that Yahiaoui's agent would have on the Hardness of feces; and 2) that the correlation establishes that the presence of Yahiaoui's agent for the purposes of decreasing the viscosity of menses would also be sufficient for decreasing the Hardness of feces by greater than about 25% when the agent is present at a concentration of no more than about 5 weight percent (as recited in claim 1).

No such correlation has been established in the Office Action.

Accordingly, the Office Action fails to set forth a prima facie case of anticipation of claims 1 and 39 based on Yahiaoui. Furthermore, Yahiaoui fails to motivate one skilled in the art to attempt to use the disclosed viscoelastic agent to reduce the hardness of feces because Yahiaoui fails to provide any teaching or suggestion that the disclosed viscoelastic agent is applicable to reducing the hardness of feces. Moreover, if one skilled in the art would attempt to reduce the hardness of feces using Yahiaoui's viscoelastic agent, the skilled artisan would not have any reasonable expectation of success because the Yahiaoui provides no guidance as to the concentration of the agent that should be applied to reduce the hardness of feces by greater than 25%, as discussed above.

The Office Action further states that, because the claimed Hardness value is determined by performing a test set forth in the application, the claimed Hardness is therefore a product-by-process limitation. Applicant is unaware, and the Office Action fails to cite, any case law or section of the MPEP or CFR that stands for the notion that a structural element in the claim (i.e., Hardness) that is defined in the specification qualifies as a product-by-process claim. If the Examiner has any legal basis for this statement, Applicant respectfully requests that the legal basis be cited.

Furthermore, Applicant respectfully directs the Examiner's attention to MPEP §2173.05(p) which defines a product-by-process claim as a product claim that defines the claimed product in terms of the process by which it is made. The absorbent article is defined in claim 1 structurally as including a feces modifying agent present in an effective amount sufficient to decrease the Hardness of at least a portion of the feces by greater than 25%. This is a structural limitation regarding the presence of the feces modifying agent that must be taught or suggested in the prior art in order for the claim to be invalid.

Accordingly, Applicant asserts that claim 1 is both novel and nonobvious over Yahiaoui.

Turning now to claim 39 in particular, this claim has been amended to recite a disposable absorbent article including a <u>reducing agent</u> present in an amount sufficient to decrease the Hardness of at least a portion of the feces by greater than about 25%. The term "reducing agent" has a specific, accepted definition known to those having ordinary skill in the art. For instance, one accepted definition of "reducing agent" is "a substance

that is readily oxidized by reducing another substance" (Grant & Hackh's Chemical Dictionary, Fifth Edition, Page 500). As described at page 18, lines 7-10 of the present specification, one example of a reducing agent is capable of reducing disulfide bonds. As a result, it <u>cannot</u> be said that a chemical or material that reduces hardness or viscosity is necessarily a reducing agent.

Yahiaoui fails to teach or suggest the use of reducing agents as known by those having ordinary skill in the art. Rather, Yahiaoui's agents comprise surfactants and, in some instances, enzymes (see, e.g., col. 2, line 64-col. 3, line 23; col. 10, lines 31-51). Neither of these materials can be properly classified as reducing agents. Specifically, a "surfactant" is known to those having skill in the chemical art as merely a surface-active agent, i.e., one that modifies the nature of surfaces (Grant & Hackh's Chemical Dictionary, Fifth Edition, Page 564). One having ordinary skill in the art does not associate surfactants with the chemical reducing properties of a reducing agent. Likewise, an enzyme is also not a reducing agent, but rather is "a catalyst, usually a protein, produced by living cells" (Grant & Hackh's Chemical Dictionary, Fifth Edition, Page 213).

For this additional reason, Yahiaoui fails to teach or suggest several elements recited in claim 39, Applicant asserts that claim 39 is allowable over Yahiaoui and withdrawal of the rejection is respectfully requested.

Accordingly, the limitations of claims 1 and 39 are both not anticipated and nonobvious in view of Yahiaoui. The corresponding dependent claims 3-7, 10, 11, 14, 18 are also allowable over the cited prior art for depending from allowable independent claims.

Furthermore, with regard to dependent claim 3, Yahiaoui fails to teach or suggest a reducing agent as discussed above with reference to claim 39.

Withdrawal of the rejection of claims 1, 3-7, 10, 11, 14, 18, and 39 under 35 USC 102(e) is therefore respectfully requested.

## Rejection Under 35 USC §103(a) Over Yahiaoui in view of Cassidy

Claim 2 is rejected under 35 USC 103(a) as being unpatentable over Yahiaoui in view of Cassidy. In particular, the Office Action states that Yahiaoui teaches alkyl

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polyglycosides, which is said to be a "functional equivalent" of the presently claimed phenols. In support of this proposition, the Office Action cites Cassidy as disclosing that alkyl glycosides and phenols are surfactants.

However, the fact that alkyl glycosides and phenols are surfactants in a skin cleansing composition (as disclosed by Cassidy) does not mean that one skilled in the art would identify them as functional equivalents for the purposes of decreasing a Hardness of feces inside a diaper, especially in light of Yahiaoui's failure to disclose the reduction of hardness of feces. Such a conclusion is tantamount to a conclusion that all surfactants are functional equivalents for the purposes of reducing hardness of feces in an absorbent article. This is clearly not the case. Applicant does not claim a surfactant in claim 2, but rather claims a feces modifying agent that decreases the Hardness of feces. There is no teaching or suggestion in Cassidy that the fact that both alkyl polyglycosides and phenols are surfactants would render them both suitable for decreasing the Hardness of feces.

Furthermore, even if such disclosure were to exist, it would still not render claim 2 obvious. Specifically, claim 2 recites, in part, phenols and not functional equivalents to phenols. Unless a prior art reference is found that teaches or suggests the usage of any of the claimed feces modifying agents that would be suitable to decrease the Hardness of feces at the claimed concentration, claim 2 is both novel and nonobvious over the prior art.

Withdrawal of the rejection of claim 2 under 35 USC 103(a) is therefore respectfully requested.

## Rejection Under 35 USC §103(a) Over Yahiaoui in view of Roe

Claims 12 and 13 have been rejected under 35 USC §103(a) as being unpatentable over Yahiaoui in view of U.S. Patent No. 5,643,588 issued to Roe et al., hereafter "Roe". Applicant cites the patentability of independent claim 1, from which claims 12 and 13 depend, as providing sufficient basis for the patentability of dependent claims 12 and 13.

Withdrawal of the rejection of claims 12 and 13 under 35 USC 103(a) is therefore respectfully requested.

Rejection Under 35 USC §103(a) Over Yahiaoui in view of Wellinghoff et al.

Claims 16 and 17 have been rejected under 35 USC §103(a) as being unpatentable over Yahiaoui in view of U.S. Patent No. 6,046,243 issued to Wellinghoff et al., hereafter "Wellinghoff". Applicant respectfully traverses the rejection by the Office Action because there is no motivation to combine the suggested documents and because the suggested combination of documents fails to teach or suggest all of the elements of the claimed invention.

The Office Action notes that Yahiaoui fails to disclose a reducing agent releasably attached to at least a portion of the article. The Office Action therefore cites Wellinghoff as disclosing an absorbent material treated with a fecal modifying agent that is releasably attached to at least a portion of the article by hydrogen bonding so as to not react with the released gas. Applicant has reviewed Wellinghoff, and could not identify any disclosure related to a fecal modifying agent.

Wellinghoff discloses a composite material that generates a sustained release of a gas, such as chlorine dioxide, when the material is exposed to moisture (see Col. 8, lines 3-6). The chlorine dioxide is used as an oxidizing agent that destroys mold spores, bacteria, and other microbiological contaminants (see Col. 1, lines 49-54). Wellinghoff does disclose that the composite material can be used in combination with an absorbent layer of a diaper. However, there is no teaching to suggest that the material, or any other material disclosed by Wellinghoff, can be used to decrease the Hardness of fecal matter. Rather, the disclosure suggests that a chloride dioxide material would be used to eliminate mold spores, bacteria, and other microbiological contaminants.

While Wellinghoff discloses a material that is releasable when exposed to fluid, it does not teach or suggest a material that is releasable to decrease the hardness of fecal matter. Likewise, while Yahiaoui discloses a material that is said to decrease the viscosity of fecal matter, Yahiaoui does not teach or suggest how the material could be combined with Wellinghoff's teachings to provide a material that is releasable to decrease the viscosity of the fecal matter. One skilled in the art would therefore not be motivated to combine the two references as suggested in the Office Action. Furthermore, even if the two references were combined, one skilled in the art would not have a reasonable expectation of success.

Moreover, as discussed above, Yahiaoui fails to teach or suggest a reducing agent for the purposes of reducing the Hardness of feces. Rather, as discussed above with respect to claim 39, Yahiaoui discloses various surfactants and enzymes, which one having ordinary skill in the art would distinguish from reducing agents.

Additionally, claims 16 and 17 depend from claim 1 which has been shown to be allowable over the cited prior art, thereby providing proper support for the allowance of claims 16-17. Withdrawal of the rejection of claims 16-17 under 35 USC 103(a) is therefore respectfully requested.

# Rejection Under 35 USC §103(a) Over Yahiaoui in view of Butterworth et al.

### 1. Claims 15 and 19

Claims 15 and 19 have been rejected under 35 USC §103(a) as being unpatentable over Yahiaoui in view of U.S. Patent No. 4,077,410 issued to Butterworth et al., hereafter "Butterworth".

Specifically, the Office Action states that Butterworth discloses an absorbent article having a brushed surface or printed hairs for the benefit of providing a soft, fibrous outer surface (Butterworth col. 3, lines 16-27 and col. 4, lines 27-43). Accordingly, the Office Action concludes that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the surface sheet of Yahiaoui to have a brushed surface or printed hairs for the benefits taught in Butterworth.

In contrast, Butterworth teaches that the facing sheet 28 can have a napped, fibrous outer surface 30 via a mechanical after treatment such as brushing, abrading, sueding, or the like. (col. 6, lines 22-27). Butterworth further teaches that a surface active agent "is deposited as a spray on the fiber elements of facing sheet 28 and promotes liquid transport from outer surface 30 to absorbent batt 33." (col. 6, lines 27-30). Butterworth makes no mention of a surface active agent being deposited on the fibers of the fibrous outer surface 30. The combination of references thus fails to teach or suggest an agent being deposited onto the fibers of the fibrous outer surface 30 of Butterworth as claimed. Claim 19, recites, in part, "wherein at least some of the three-dimensional structures comprise printed hairs, wherein the printed hairs include feces modifying agent thereon." As a result, even if the references are combined in the manner

suggested in the Office Action, the combination would fail to teach or suggest a brush structure that includes feces modifying agent, as is recited in claim 19.

Furthermore, claim 15 depends from claim 11which recites that the feces modifying agent comprises a reducing agent. As discussed above with respect to claim 39, Yahiaoui fails to teach or suggest a reducing agent as understood by one having ordinary skill in the art.

Moreover, claims 15 and 19 are allowable for depending from allowable claim 1. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 15 and 19 under 35 USC 103(a).

## 2, Claims 1-3, 20-22, and 39

Claims 1-3, 20-22, and 39, have been rejected under 35 USC §103(a) as being unpatentable over Wellinghoff.

Specifically, the Office Action at Paragraph 3, states that "Wellinghoff explicitly discloses in col. 27, line 44-45 the treated surface can be an absorbent layer for use in diapers." The Office Action therefore concludes that the article itself can be used as a diaper as an intended use of the product.

However, what the Office Action fails to address at Paragraph 3 is whether Wellinghoff discloses a material that decreases the Hardness of fecal matter, particularly by greater than 25% at a concentration of no more than about 5 weight percent as claimed.

Turning now to Paragraph 16, the Office Action asserts that Wellinghoff discloses an effective amount of a reducing agent, which decreases the viscosity of the feces, disposed in the article such that the reducing agent is available to contact at least a portion of the feces deposited in the article. The Office Action cites exemplary amines listed at col. 11, lines 45-60 as providing the reducing agent.

Applicant has reviewed Wellinghoff, and has found no teaching or suggestion that any of the cited materials are capable of reducing the Hardness of feces. As to the Examiner's argument that decreasing hardness is an inherent property of the amines whether recognized by Wellinghoff or not, Applicant notes that even if that were the case,

Wellinghoff would still fail to teach or suggest all structural limitations of claims 1 and 39.

Specifically, because Wellinghoff gives no teaching or suggestion to reduce the hardness of feces using any of the disclosed materials, Wellinghoff cannot (and does not) teach or suggest an agent that is present in an effective amount to decrease the Hardness of feces (recited in claims 1 and 39). Furthermore, without this teaching or suggestion, Wellinghof cannot (and does not) teach or suggest an agent present in an amount that decreases the Hardness of feces by more than 25% at a concentration less than 5%.

Any attempt, therefore, by the Office Action to assert that Wellinghoff's disclosure teaches an agent that reduces the Hardness as recited in claims 1 and 39 is necessarily based on impermissible hindsight in light of Applicant's own disclosure that teaches the reduction of Hardness of feces.

For the foregoing reasons, claims 1 and 39 are clearly patentable over Wellinghoff, as are corresponding dependent claims 2-3 and 20-22. Accordingly, withdrawal of the rejection of claims 1-3, 20-22, and 39 under 35 USC 103(a) is respectfully requested.

## Rejection Under 35 USC §103(a) Over Yahiaoui in view of Al-Sabah.

Claim 38 has been rejected under 35 USC §103(a) as being unpatentable over Yahiaoui in view of U.S. Patent No. 5,868,723 issued to Al-Sabah, hereafter "Al-Sabah".

Specifically, at Paragraph 5, the Office Action states that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the Office Action asserts that the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

As a first matter, Applicant respectfully directs the Examiner's attention to MPEP § 2142 which lays out the three criteria that must be met to support a finding of obviousness. Specifically, First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must

be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicant respectfully asserts that the cited combination of references fails on all three fronts. To begin, there is no suggestion or motivation to modify Yahiaoui in the manner suggested in the Office Action. As stated in the MPEP § 2143.01: "Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In this case, there is no suggestion or motivation in any of the references to modify Yahiaoui in the manner suggested in the Office Action. Al-Sabah teaches an apparatus 10 which includes an "audio indicating means 40 connected to the moisture sensing means 20." (col. 4, lines 57-59) that communicates with an actuator in the form of an audible alarm sound generator 43 that is responsive to the moisture sensors generating an audible alarm sound (col. 5, lines 1-4). The audio alarm is present for the purposes of allowing the infant, child, or adult to discover whether or not the wearer is wet without requiring continual visual observation (col. 7, lines 17-19). \*\*\* Yahiaoui, as discussed above, teaches "structures particularly adapted to receive fluids having viscoelastic properties such as menses, mucous, blood products, feces." (col. 2, lines 36-38). Yahiaoui teaches that the addition of viscoelastant agents can reduce the elastic stress and viscosity of menses under certain conditions (col. 10, lines 54-67; col. 11, lines 1-2).

Nowhere does either reference suggest modifying Al-Sabah's actuator to emit a viscoelastant agent in response to the presence of feces. To begin, Al-Sabah teaches that wetness and moisture can be sensed to provide an audible output. Nowhere does Al-Sabah suggest an actuator of the type that would be suitable, inside a diaper, to emit a viscoelastant agent. The only actuator disclosed by Al-Sabah is one that emits audio output.

Furthermore, Yahiaoui teaches away from being combined with Al-Sabah in the manner suggested in the Office Action. Specifically, even if an actuator were to emit Yahiaoui's disclosed viscoelastic agent, the agent would have no effect on decreasing the Hardness of feces for reasons discussed above. Furthermore, because Al-Sabah's sensor detects wetness generally, and thus not only the presence of menses, the actuator would

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emit the viscoelastic agent to other bodily excrements whose hardness is not disclosed as being affected by Yahiaoui's viscoelastic agent.

Additionally, for this reason, one having ordinary skill in the art would not have a reasonable expectation of success when combining Yahiaoui and Al-Sabah in the manner suggested in the Office Action.

Finally, even if the references were combined in the manner suggested in the Office Action, the combination would fail to teach or suggest all claim limitations recited in claim 38. Specifically, the combination would merely to produce a diaper having 1) viscoelastic agents disposed therein for the purposes of decreasing the viscosity of menses (and not feces); and 2) a sensor the senses an input in the form of wetness or moisture and activates an audible alarm in response to the sensed input.

Contrary to what is alleged in the Office Action, the combination would not provide a sensor and actuator that is nowhere taught or suggested in any of the references, either alone or in combination (i.e., an sensor the detects feces and an actuator that emits viscoelastic agents that decrease the Hardness of the feces).

Accordingly, Applicant asserts that claim 38 is patentable over the cited references. Accordingly, withdrawal of the rejection of claim 38 is respectfully requested.

#### New Claims.

New claim 40 has been added that depends from claim 1. Applicant asserts the patentability of claim 1 as providing sufficient basis for the allowability of claim 40.

Claims 41-49 have been added that depend from independent claim 38, and are therefore allowable as depending from an allowable independent claim.

Claim 50 has been added that depends from claim 39, and further defines the recited reducing agent. Because claim 39 has been shown to be allowable, formal allowance of claim 40 is respectfully requested.

Formal allowance of claims 40-50 is therefore respectfully requested.

#### Conclusion

In light of the above remarks, it is requested that the Examiner reconsider and withdraw the outstanding rejections. Early and favorable action in the case is respectfully requested.

Applicants have made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, Applicants respectfully request reconsideration of this application, entry of the amendments presented herein, and allowance of the claims.

Applicant does not believe than any fees are due for the filing of new claims along with this Amendment. Specifically, Applicant had already paid for the Examination of 39 claims as originally filed. Sixteen claims were subsequently cancelled (i.e., claims 8 and 23-37) in the April 4, 2005 Amendment. Accordingly, the addition of eleven dependent claims in this communication brings the pending claims to a total that is less than that already paid for. If, however, any fees are deemed due as the result of this or any other communication, Applicant hereby authorizes the Commissioner to deduct said fees for this or any other communication from Deposit Account No. 16-2480.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

Signature

Adam J. Forman

Typed or Printed Name

Registration No. 46,707

(513) 634-5042